

WHAT IS CLAIMED IS:

1. An off-road vehicle comprising a frame, at least one front wheel and at least one rear wheel, the front and rear wheels supporting the frame, a seat disposed on the frame, an internal combustion engine being mounted to the frame, the engine comprising a crankshaft, a transmission comprising an output shaft, the output shaft being connected to the crankshaft, the output shaft driving at least one of the front wheel and the rear wheel, the seat having a front end and a rear end, the crankshaft being positioned between the output shaft and the rear wheel, and at least the output shaft being disposed between a generally vertically extending first plane that extends through the front end of the seat and a generally vertically extending second plane that extends through the rear end of the seat.
2. The off-road vehicle as set forth in Claim 1, wherein at least a portion of the engine extends rearward through the second plane.
3. The off-road vehicle as set forth in Claim 2, wherein the engine comprises an air intake system and a front surface, and the intake system extends generally forward from the front surface of the engine.
4. The off-road vehicle as set forth in Claim 3, wherein the engine comprises an exhaust system and a rear surface, and the exhaust system extends generally rearward from the rear surface of the engine.
5. The off-road vehicle as set forth in Claim 1, wherein the engine comprises an air intake system and an exhaust system and the air intake system and the exhaust system extend in opposite directions from the engine.
6. The off-road vehicle as set forth in Claim 1, wherein the seat has a top end and at least one of the crankshaft and the output shaft is positioned vertically lower than a generally horizontally extending third plane that passes extends along the top end of the seat.
7. The off-road vehicle as set forth in Claim 1, wherein the engine comprises an air intake system, the seat comprises a first seat section and a second seat section, the first and second seat sections being spaced apart from each other, at least a portion of the intake system extending between the first and second seat sections.
8. The off-road vehicle as set forth in Claim 7, wherein the intake system comprises a fuel supply device, and the fuel supply device is positioned between the first and second seat sections.

9. The off-road vehicle as set forth in Claim 1 additionally comprising a change speed mechanism arranged to operate the transmission, the change speed mechanism comprising a manually operable lever unit, the seat including a first seat section and a second seat section that are laterally spaced apart from each other, and the lever unit being disposed generally between the seat sections.

10. The off-road vehicle as set forth in Claim 9, wherein the lever unit comprises a shift lever and a cover member and at least a portion of the cover member is positioned between the first and second seat sections.

11. The off-road vehicle as set forth in Claim 1, wherein the engine and the transmission are directly connected with casings such that a unitarily construction results.

12. The off-road vehicle as set forth in Claim 1, wherein at least a portion of the engine is positioned rearward of a back rest associated with the seat.

13. The off-road vehicle as set forth in Claim 1, wherein a pair of front wheels and a pair of rear wheels support the frame.

14. An off-road vehicle comprising a frame, at least one front wheel and at least one rear wheel supporting the frame, an internal combustion engine being mounted to the frame, the engine comprising a crankshaft that drives at least one of the front wheel and the rear wheel, a seat mounted to the frame, the seat comprising a front end and a rear end, the crankshaft being positioned between a generally vertically extending first plane that extends along the front end of the seat and a generally vertically extending second plane that extends along the rear end of the seat, at least a portion of the engine also extending through the second plane.

15. The off-road vehicle as set forth in Claim 14, wherein the seat has a bottom end upon which an occupant sits and the crankshaft is positioned vertically lower than a generally horizontally extending third plane that extends along the bottom end of the seat.

16. The off-road vehicle as set forth in Claim 15, wherein at least a portion of the engine is positioned vertically higher than the third plane.

17. The off-road vehicle as set forth in Claim 16, wherein the seat has a back and said engine extends at least partially rearward of the back.

18. An off-road vehicle comprising a frame, at least one front wheel and at least one rear wheel supporting the frame, a seat disposed on the frame, an internal combustion engine mounted to the frame, the engine comprising a crankshaft, a transmission comprising an output shaft driven by the crankshaft, the output shaft being

connected to at least one of the front wheel and the rear wheel, the seat having a front end, a rear end and a bottom end, the crankshaft being positioned between the output shaft and the rear wheel, the output shaft being disposed between a generally vertically extending first plane extending along the front end of the seat and a generally vertically extending second plane extending along the rear end of the seat, at least a portion of the engine extending rearward through the second plane and at least a portion of the engine being vertically higher than a generally horizontally extending third plane that extends along the bottom end.

19. An off-road vehicle comprising a frame, at least one front wheel and at least one rear wheel supporting the frame, a seat disposed on the frame, a prime mover mounted to the frame, the prime mover comprising a first shaft, a transmission comprising a second shaft, the second shaft being driven by the first shaft, the second shaft driving at least one of the front wheel and the rear wheel, the seat comprising a front end and a rear end, the first shaft being positioned between the second shaft and the rear wheel, and the second shaft being positioned between a generally vertically extending first plane that extends along the front end of the seat and a generally vertically extending second plane that extends along the rear end of the seat.